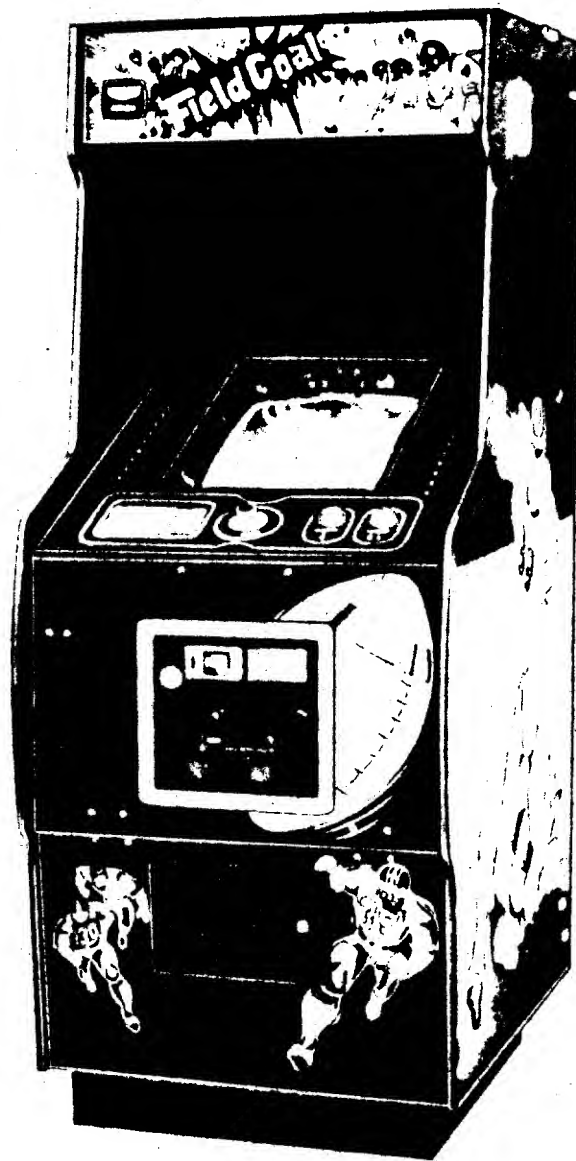


# Field Goal



**SERVICE INSTRUCTIONS  
AND PARTS CATALOG**



**TAITO CORPORATION**

## 5. Playing Instructions

- o 1 or 2 player game.
- o 1 coin; 1 game (1 player).. 3 balls (adjustable to 5 balls)
- o 2 coins; 2 games (1 player) or 1 game (2 players)
- o After inserting Coin(s), press either one two player button to start game.
- o After finish game-start music, helmets (blue, yellow, and red ones), the paddle and the ball will appear on the screen.
- o Turn the control knob to move the paddle right or left and strike the ball.
- o Two players alternate play.
- o Scoring:
  - A goal ..... 300 pts.
  - A blue helmet ..... 40 pts.
  - A yellow helmet ..... 30 pts.
  - A red helmet ..... 20 pts.
  - (BONUS)
  - A complete row of blue helmets ..... 1,500 pts.
  - A complete row of yellow helmets ..... 1,000 pts.
  - A complete row of red helmets ..... 500 pts.
- o One free game when the score of "TOP THIS SCORE FOR CREDIT" displayed on the screen is reached.

#### Functional Description of Game:

- o When the ball hits the player image running on the screen, the points (the player uniform number x100) will be added to the points displayed on the goal.
- o When the points displayed on the goal reach 1,000 or more, these points and the word "EXTRA" are displayed alternately on the screen. If the player gets a goal when the word "EXTRA" is displayed, he will be awarded one free-ball play.
- o The speed of the ball will change at random.
- o The size of the paddle becomes small if the player continues to hit helmets. If he misses a ball the size of the paddle becomes as large as before.
- o If the ball hits the head of the player's image running on the screen, he will be down and disappear.
- o In 5-ball game, the scoring for helmets changes as follows:
  - A blue helmet ..... 30 pts.
  - A yellow helmet .... 20 pts.
  - A red helmet ..... 10 pts.
- o From the top to the 3rd HI-SCORE'S will be displayed on the screen at the time of the attract mode (game-over).

## 7. Adjustments on Game & Sound PC Board

(See Fig. 4 and Tables 1 & 2)

To decrease the sound, turn each pot counterclockwise.

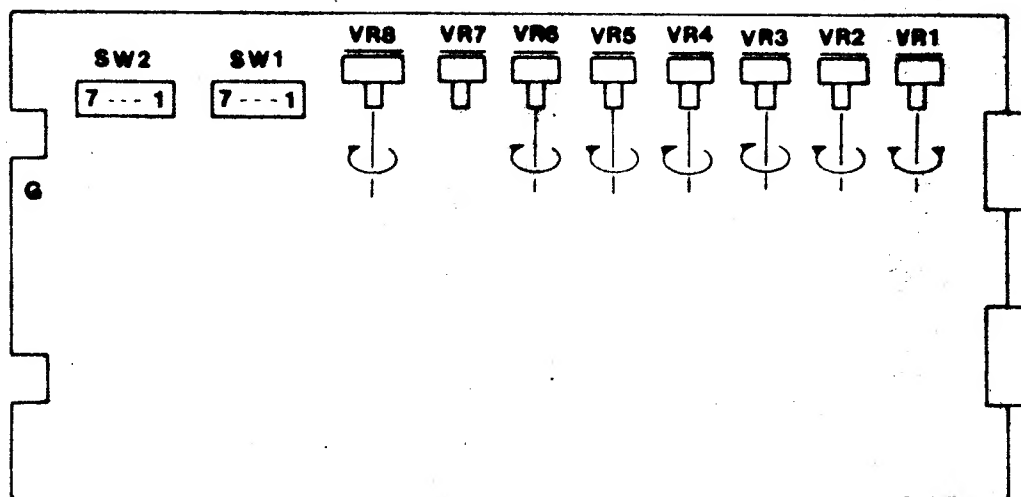


Fig. 4

- o VR1 ... Pot for adjusting the movement of the paddle.  
(If the paddle does not touch either side of the wall, adjust it by turning this pot.)
- o VR2 ... Pot for adjusting the sound volume of the ball bouncing.
- o VR3 ... Pot for adjusting the music at the game start and the game-over.
- o VR4 ... Pot for adjusting the forward-hit sound when the ball is passed to the player-image.
- o VR5 ... Pot for adjusting the sound volume of "Do·Do·Do"
- o VR6 ... Pot for adjusting the sound volume when the player-image falls down.
- o VR7 ... Pot for adjusting the tone when the player-image falls down.
- o VR8 ... Pot for adjusting total sound.

DIP Switch NO.1:

- o SW1 - SW3 ... Switches for the change-over of the replay scores (See Fig. 4 and Table 1)

The replay scores are shown at the rate of 30% and 20%, and they become higher and higher as the number of replays are increased.

SW			REPLAY SCORE			
1	2	3	30%		20%	
a	ON	ON	7,000	9,000	12,000	17,000
b	OFF		12,000	17,000	23,000	28,000
c	ON		23,000	28,000	33,000	39,000
d	OFF		33,000	39,000	45,000	50,000
e	ON	OFF	45,000	50,000	57,000	65,000
f	OFF		57,000	65,000	72,000	79,000
g	ON		72,000	79,000	86,000	93,000
h	OFF		86,000	93,000	99,000	150,000

Table 1

Note: The Replay score is preset at "f" at the factory.

- o SW4 ... Switch for the change-over of the replay  
When this switch is set at the "ON" position,  
no replay will be awarded.  
This switch is preset at the "OFF" position at  
the factory.
- o SW5 ... Switch for factory-adjusting the solid-state  
modules This switch should be always set at  
"OFF" position.
- o SW6 ... Switch for the change-over of the ball number

SW6	Number
ON	3
OFF	5

Table 2

This switch is preset at the "ON" position  
(3 balls) at the factory.

- o SW7 ... Switch for displaying "ONE PLAYER 1 COIN,  
TWO PLAYERS 2 COINS" on the screen  
When the switch is set at the "ON" position, these  
words are not displayed.  
Normally, this switch is set at the "OFF" position.

#### DIP Switch NO.2:

- o SW1 ... Switch for rotating the screen images  
When the switch is set at the "OFF" position  
the screen images will be rotated. (for Cocktail  
Version) In the upright version, this switch  
should be set at the "ON" position.
- o SW2 ... Switch for the change-over 1 COIN - 1 PLAYER or  
1 COIN - 2 PLAYERS (See Fig. 4 and Table 3)

SW2	COIN	PLAYER(S)
OFF	1	1
ON	1	2

Table 3

This switch is preset at the "OFF" position at  
the factory.

- o SW3 ... Switch for the change-over the instruction languages  
(See Fig. 4 and Table 4)

SW3	LANGUAGE
OFF	ENGLISH
ON	JAPANESE

Table 4

This switch is preset at the "OFF" position  
(ENGLISH) at the factory.

- o SW4 - SW7 ... Switches for factory-adjusting the solid-  
state modules

These switches should be always set at the "OFF"  
positions.

9. Adjustments of Supply Voltage (See Fig. 6)

- If the voltage of the power supply is low, the picture on the screen sometimes gluckers. In that case, change the connection of the power transformer terminals in the cabinet. This adjustment is obtained by using the change-over switch.

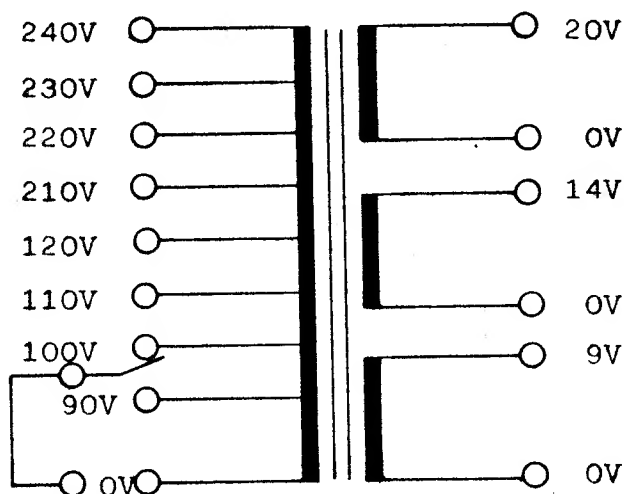


Fig. 6

10. Typical Picture During Play (See Fig. 7)

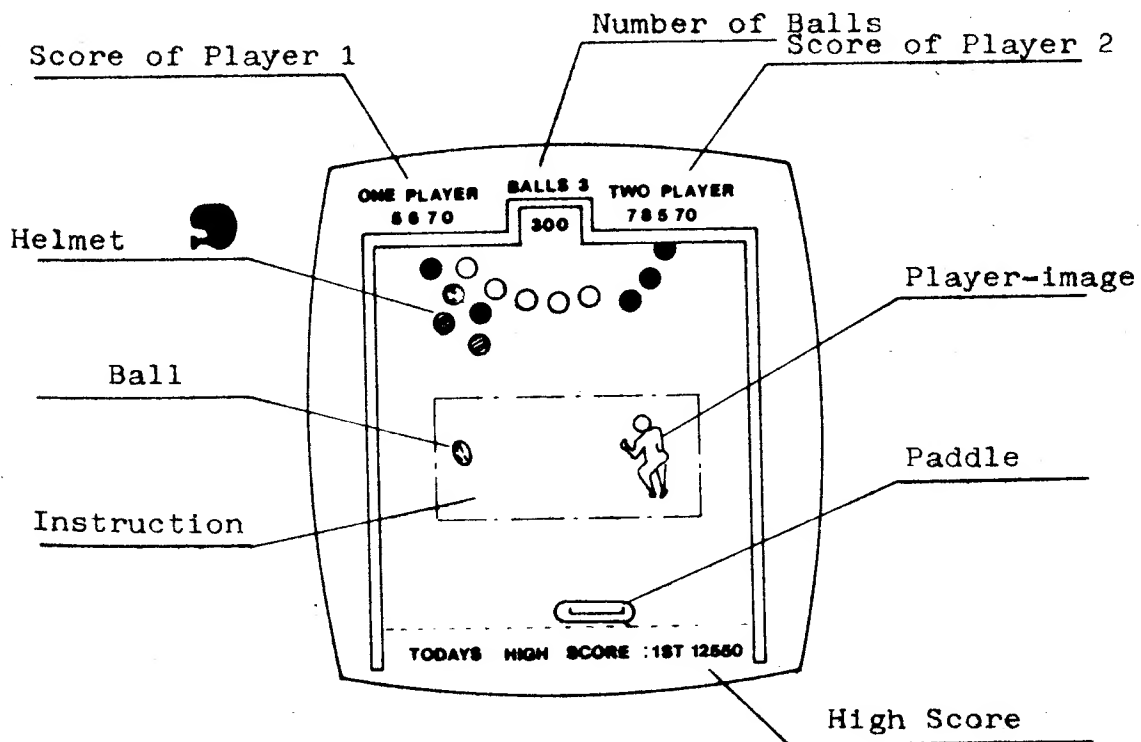
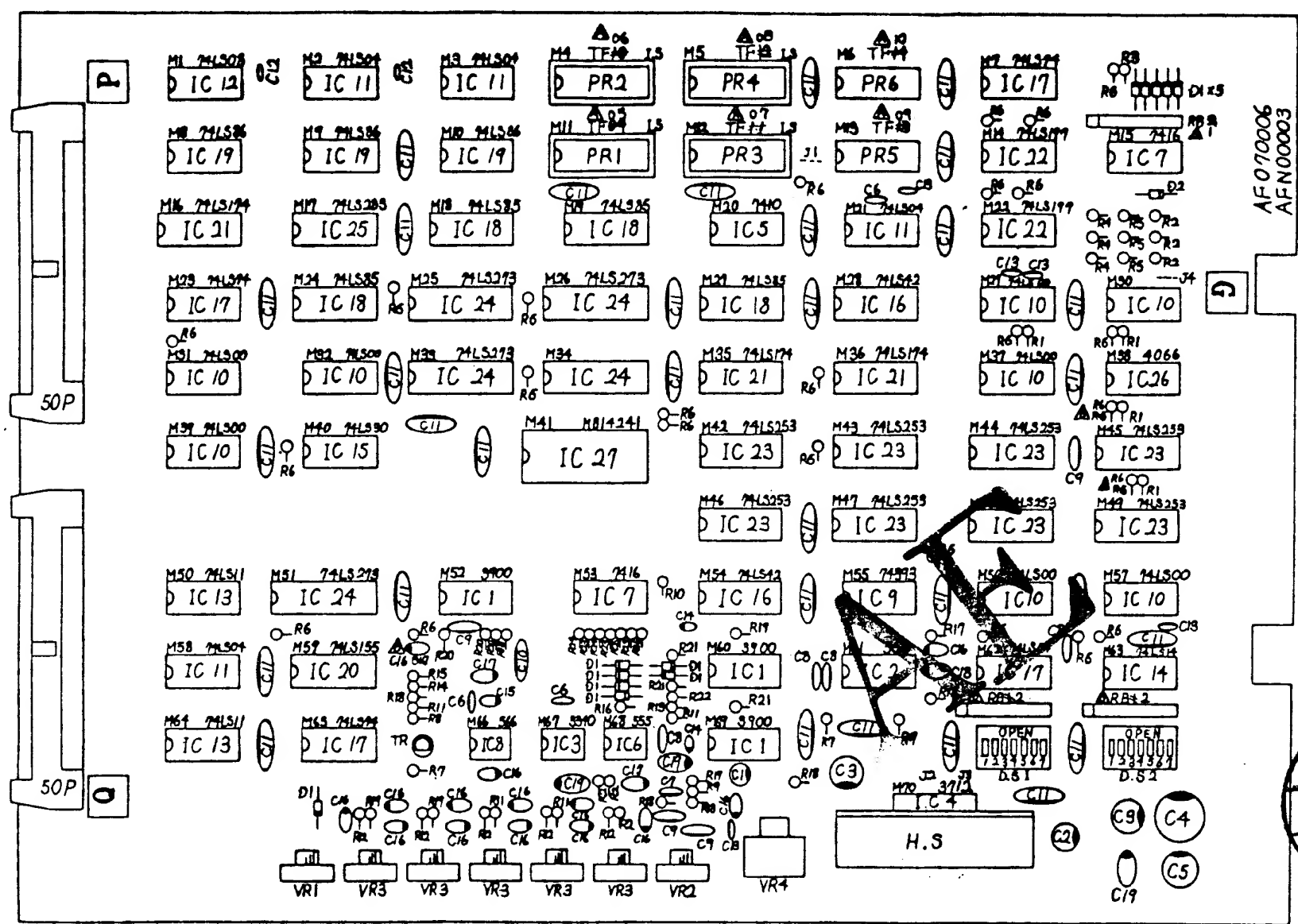


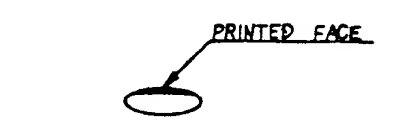
Fig. 7



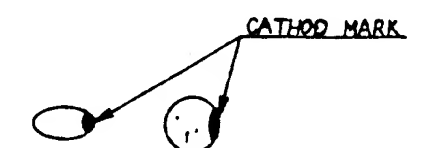
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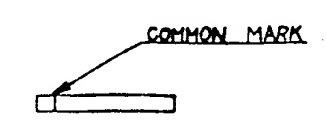
NOTE-1. HOW TO MOUNT RESISTOR



NOTE-2. CAP., FILM & CERAMIC



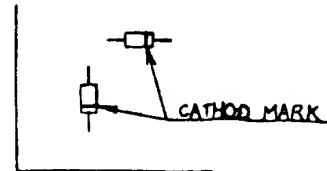
NOTE-3. CAP. TANTALUM & ELECTROLYTIC



NOTE-4. RESISTOR BLOCK



NOTE-5. TRANSISTOR (2SC372-0)



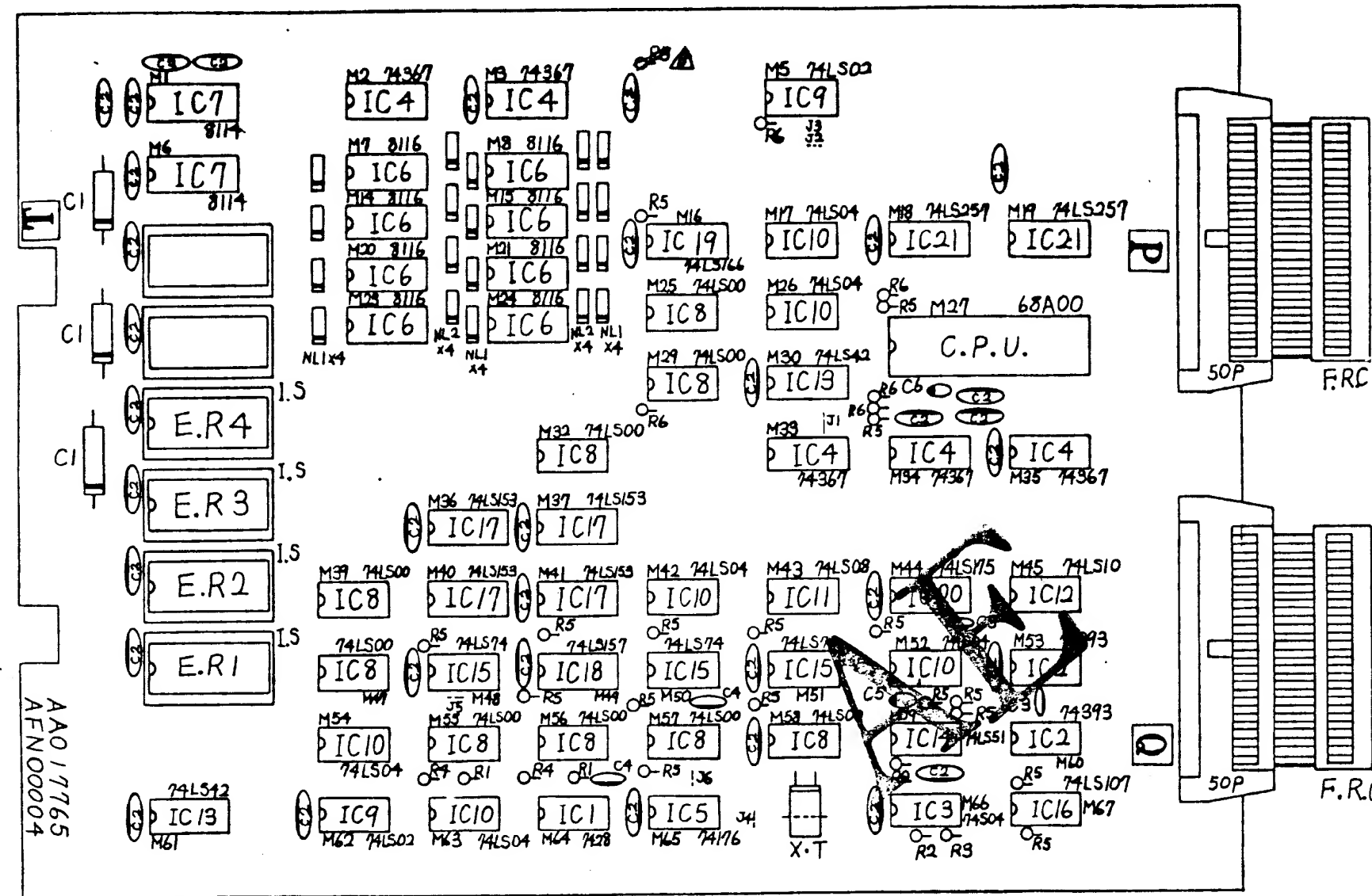
NOTE-6. DIODE (1S1588, RD-9A-M)

ITEM	SYMBOL	PART NO.	DESCRIPTION	QTY
1	RES	55038	RESISTOR BLOCK 22KOHM 8-ELEMENT	1
2	RES	55039	RESISTOR BLOCK 10KOHM 8-ELEMENT	1
3	VR	53047	VARIABLE RESISTOR, 8-50K RV8YP	1
4	VR	53041	VARIABLE RESISTOR, 8-50K	1
5	VR	53038	VARIABLE RESISTOR, 8-5K	1
6	VR	53037	VARIABLE RESISTOR, 8-2K	1
7	RES	51967	RES. CARBON, 100KOHM 1/4W 5%	1
8	RES	51965	68K	1
9	RES	51960	20K	1
10	RES	51957	1 K OHM 1/4W 5%	3
11	RES	51847	2.7MOHM 1/4W 5%	1
12	RES	51833	680K	3
13	RES	51831	560K	3
14	RES	51813	220K	4
15	RES	51811	100K	5
16	RES	51810	82K	1
17	RES	51809	75K	1
18	RES	51808	RES. CARBON, 68K OHM 1/4W 5%	1
19	SYMBOL	55038	RES. CARBON, 68K OHM 1/4W 5%	1

RES. CARBON, 220HM 1/4W 5%		1
CAP. TANTALUM, 355DB-10M		3
SSG35-488F		1
SSG35-487F		1
SSG35-1F		1
SSG35-002A		1
CAP. TANTALUM, 55G35-0R1F		2
CAP. CERAMIC, 470PF		5
CAP. CERAMIC, 100PF		3
CAP. FILM, TDY-H-104		3
TDY-H-473		1
TDY-H-333		4
TDY-H-103		4
TDY-H-222		1
CAP. FILM, TDY-H-103		3
CAP. ELECTROLYTIC, 25VB-100		1
KVB-100		1
KVB-100		2
KVB-47		1
CAP. ELECTROLYTIC, 16VB-10		1
P-ROM, FF-10(TF10), 1K		1
FF-10(TF09), 1K		1
FF-10(TF08), 4K		1
FF-10(TF07), 4K		1
FF-10(TF06), 4K		1
P-ROM, FF-09(TF05), 4K		1
CUSTOM L.C., MB14241		1
C-MOS, CD4066A		1
LS, 74LS283		1
74LS273		5
74LS253		8
74LS197		2
74LS174		3
74LS155		1
74LS86		3
74LS85		4
74LS74		4
74LS42		2
74LS30		1
74LS14		1
74LS11		2
74LS07		1
74LS04		4
LS, L.C., 74LS00		8
TTL, L.C., 74393		1
NE566V		1
7416		2
NE555V		1
7410		1
OP AMPLIFIER, MC3312		1
ATTENUATOR, MC3340P		1
TIMER, L.C., NE555A		1
OP AMPLIFIER, LM3900		3
ZENER DIODE, RD-9A-M		1
DIODE, 151588		12
TRANSISTOR, 35C 372-0		1
ANGLE PIN HEADER, RS-50PA		2
L.C. SOCKET, 18P		4
DIP SWITCH, DSS-7		2
CONNECTOR STICKER, G		1
P		1
CONNECTOR STICKER, G		1
NUT, M2.3		2
PAN HD SCREW, M2.3X8		2
NUT, M3		1
PAN HD SCREW, M3X8		1
HEAT SINK		1
A.F.-GAME & SOUND P.C. BOARD		1
PARTS LIST		
TAITO CORPORATION		
FIELD GOAL		
AF-GAME PC BOARD		
ASSY.		
AFEN00003		



REVISIONS			
LTG	DESCRIPTION	DATE	APPROVED
1	M-23-9 1POINTS	8.21.77	L
2	M-23-10 2POINTS	8.31.77	L



50	FRC	AA5 00215	F.R.C-HARNESS ASSY	P5-50	2
49			TINNED COPPER WIRE	0.5	200
48	NL2	AAT 61020	NOISE LIMIT	CS90E-1E-1R500-R58	8
47	NLP	61019	NOISE LIMIT	CS90E-1A-3R300-R58	12
46	R6	51789	RES. CARBON	10K OHM 1/4W ±5%	5
45	R5	51765		1K	18
44	R4	51758		510	2
43	R3	51757		470	1
42	R2	51753		330	2
41	R1	51721	RES. CARBON	15 OHM 1/4W ±5%	2
40	C6	41436	CAP. TANTALUM	SSG35-1F	1
39	C5	41429	CAP. TANTALUM	SSG25-6R8F	1
38	C4	41334	CAP. CERAMIC	470PF 50V	2
37	C3	41318	CAP. CERAMIC	100PF 50V	2
36	C2	41244	CAP. FILM	TDY-1H-104	30
35	C1	AAT 41094	CAP. ELECTROLYTIC	16T 47	3
34	ER4	90004	EP-ROM	AF-04 (TF04)	2716
33	ER3	90003		AF-03 (TF03)	
32	ER2	90002		AF-02 (TF02)	
31	ER1	90001	EP-ROM	AF-01 (TF01)	2716
30	CPU	AAT 34006	C.P.U.	68A00	1
29	IC21	33164	LS I.C	74LS257	2
28	IC20	33128		74LS175	1
27	IC19	33121		74LS166	1
26	IC18	33112		74LS157	1
25	IC17	33108		74LS153	4
24	IC16	33076		74LS107	1
23	IC15	33051		74LS74	3
22	IC14	33040		74LS51	1
21	IC13	33032		74LS42	2
20	IC12	33011		74LS10	1
19	IC11	33009		74LS08	1
18	IC10	33005		74LS04	6
17	IC9	33003		74LS02	2
16	IC8	33001	LS I.C	74LS00	9
15	IC7	32156	STATIC RAM	MB8114NLM	2
14	IC6	32153	DYNAMIC RAM	MB8116N T4116	8
13	IC5	32145	TTL I.C	74176	1
12	IC4	32099		74367	5
11	IC3	32096		74S04	1
10	IC2	32076		74393	2
9	IC1	AAT 32047	TTL I.C	7428	1
8	X.T	AAO 69575	X-TAL	10.065MHZ	1
7	I.S	55787	I.C SOCKET	24P	4
6	50P	55154	ANGLE PIN HEADER	P5-50PA	2
5	T	17665	CONNECTOR STICKER	T	1
4	Q	17656		Q	1
3	P	AAO 17653	CONNECTOR STICKER	P	1
2	B.S	AF070014	P.C BOARD STICKER		1
1		AAO 17765	C.P.U.-P.C BOARD	6800	1

- CATHOD MARK

NOTE 1) CAP. FILM & CERAMIC
- CATHOD MARK

NOTE 2) CAP. TANTALU
- CATHOD MARK

NOTE 3) CAP. ELECTROLYTIC
- CATHOD MARK

NOTE 4) NOISE LIMIT
- GOLD

NOTE 5) HOW TO MOUNT RESISTOR



<b>TAITO CORPORATION</b> NAME: FIELD COAL A.F-C.P.U PC BOARD ASSY.	
DRAWN: Y. Shinada CHECKED: 7.16.77 APPROVED: [Signature] DO NOT SCALE DRAWING	PARTS LIST 7.16.77 A2 AFN00004

